54

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/019,614	02/06/1998	ARI KOSKI	460-007777-U	2231

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CLARENCE A GREEN
PERMAN AND GREEN
425 POST ROAD
FAIRFIELD, CT 06430

EXAMINER	
GRIER, LAURA A	

ART UNIT	PAPER NUMBER
2644	

DATE MAILED: 12/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.	Applicant(s)	
	09/019,614	KOSKI ET AL.	
	Examiner	Art Unit	
	Laura A Grier	2644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) *15 and 16* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14 and 17-28* is/are rejected.

7)☒ Claim(s) *29 and 30* is/are objected to.

8)☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

15)☒ Notice of References Cited (PTO-892)
16)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
17)☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
18)☐ Interview Summary (PTO-413) Paper No(s). _____ .
19)☐ Notice of Informal Patent Application (PTO-152)
20)☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. **Claims 1-4 and 10-11** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wong et al.

Regarding **claim 1**, Wong et al. discloses an electronic device with equalized audio accessory and method for same. Wong discloses in figure 2 a portable radio communication an electronic device comprising a DSP (digital signal processor) - reference 206; coupled to an accessory device-reference 120, which constitutes at least one auxiliary device connection for connecting an auxiliary device; the accessory device stores audio parameters (column 3, lines 5-8) that are load into the DSP, and further supports two-way communication of data as disclosed in col. 3, lines 9-24. Further, it was obvious one of ordinary skill to provide two communication of digital data where the transmission of digital audio data is a very commonly used technique in the art of audio signal processing.

Regarding **claim 2**, Wong et al. further discloses radio accessory interface-reference 115, accessory device-reference 120 via the RAI for storing audio parameters (column 2, last paragraph) that are load into the DSP.

Regarding **claim 3**, Wong et al. further discloses radio accessory interface-reference 115 via signal lines 250 and 240 (figure 2) to accessory device-reference 120 with memory-reference 220 for storing audio parameters (column 2, last paragraph) that are load into the DSP.

Regarding **claim 4**, Wong et al. further discloses radio accessory interface-reference 115 via signal lines 250 and 240 (figure 2) to accessory device-reference 120 with memory-reference 220 (columns 2, last paragraph – column 3, line 5), which is indicative of a detection line and a connection bus transferring information between the electronic device and accessory device.

Regarding **claim 10**, Wong et al. further discloses (column 2, 2nd and last paragraph, column 4, line 40-45) indication of the parameters characterizing the accessory device.

Regarding **claim 11**, Wong et al. further discloses the DSP receiving audio parameters from the accessory device (figure 2 and column 3, 2nd paragraph).

4. **Claims 5-9 and 12-13** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wong et al.

Regarding **claim 5**, Wong et al. discloses an electronic device with equalized audio accessory and method for same. Wong discloses in figure 2 a portable radio communication an electronic device comprising a DSP (digital signal processor) - reference 206; coupled to an accessory device-reference 120, which constitutes at least one auxiliary device connection for connecting an auxiliary device; the accessory device

stores audio parameters (column 3, lines 5-8) that are load into the DSP, and further supports two-way communication of data as disclosed in col. 3, lines 9-24. Further, it was obvious one of ordinary skill to provide two communication of digital data where the transmission of digital audio data is a very commonly used technique in the art of audio signal processing.

Regarding **claim 6**, Wong et al. discloses everything claimed as applied above (see claim 5). Wong et al. further discloses radio accessory interface-reference 115 via signal lines 250 and 240 (figure 2) to accessory device-reference 120 with memory-reference 220 (columns 2, last paragraph – column 3, line 5), which is indicative of a detection line and a connection bus transferring information between the electronic device and accessory device.

Regarding **claims 7 and 8**, Wong et al. discloses everything claimed as applied above (see claim 5). However, Wong et al. further discloses a transmitter/receiver unit of a mobile station figure 2-reference 110.

Regarding **claim 9**, Wong et al. discloses everything claimed as applied above (see claim 8). Wong et al. discloses an accessory device with a microphone and speaker (figure 1-references 120 and 130).

Regarding **claim 12**, Wong et al. further discloses (column 2, 2nd and last paragraph, column 4, line 40-45) indication of the parameters characterizing the accessory device.

Regarding **claim 13**, Wong et al. further discloses the DSP receiving audio parameters from the accessory device (figure 2 and column 3, 2nd paragraph).

5. **Claims 14-17, 23-24 and 27** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wong-et al. in view of Phillips, U. S. Patent No. 5689823.

Regarding **claims 14, and 24**, Wong et al. discloses an electronic device with equalized audio accessory and method for same. Wong discloses in figure 2 a portable radio communication an electronic device comprising a DSP (digital signal processor) - reference 206; coupled to an accessory device-reference 120, which constitutes at least one auxiliary device connection for connecting an auxiliary device; the accessory device stores audio parameters (column 3, lines 5-8) that are load into the DSP. However, Wong et al. fails to specifically disclose a writeable mass storage separate from the processor, the writable mass storage being disposed within the electronic device. The examiner maintains that such a writeable mass storage was well known in the art.

Regarding the writeable mass storage being separate from the processor, in a similar field of endeavor, Phillips discloses a radio having an option board interface and an option board for use therewith. Phillips disclosure comprises a DSP (105) including a memory (107) and an external memory (109 and/or 133) coupled thereto, which may constitute as a writeable mass storage, wherein digital audio data is transmitted between the memories (figure 1)

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Wong et al. by implementing additional memory in an electronic device for the purpose of storing data for controlling the DSP and further enhancing the transfer of data from one device to another with better

efficiency, thus providing better operation capability of a radio device or the like as taught by Phillips.

Regarding **claim 17**, Wong and Phillip disclose everything claimed as applied above (see claim 14). Wong et al. further discloses radio accessory interface-reference 115 via signal lines 250 and 240 (figure 2) to accessory device-reference 120 with memory-reference 220 (columns 2, last paragraph – column 3, line 5), which is indicative of a detection line and a connection bus transferring information between the electronic device and accessory device.

Regarding **claim 23**, Wong and Phillip disclose everything claimed as applied above (see claim 14). Wong et al. further discloses (column 2, 2nd and last paragraph, column 4, line 40-45) indication of the parameters characterizing the accessory device.

Regarding **claim 27**, Wong and Phillip disclose everything claimed as applied above (see claim 14). However, Wong and Phillip fail to specifically disclose the writable mass storage as FLASH memory. The examiner takes official notice that FLASH memory was well known in the art.

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Wong and Phillip by implementing a writable mass storage by use of FLASH memory wherein, FLASH, FLASH memory is a type of non-volatile memory in which data will not be erased without power, thus providing adequate and permanent storage of the data/parameters, further FLASH memory is a well known storage medium for electronic device in the art of audio signal processing.

6. **Claims 18-22, 25-26 and 28** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wong et al. in view of Phillip.

Regarding **claims 18, and 26**, Wong et al. discloses an electronic device with equalized audio accessory and method for same. Wong discloses in figure 2 a portable radio communication an electronic device comprising a DSP (digital signal processor) - reference 206; coupled to an accessory device-reference 120, which constitutes at least one auxiliary device connection for connecting an auxiliary device; the accessory device stores audio parameters (column 3, lines 5-8) that are load into the DSP. However, Wong et al. fails to specifically disclose a writeable mass storage separate from the processor, the writable mass storage being disposed within the electronic device. The examiner maintains that such a writeable mass storage was well known in the art.

Regarding the writeable mass storage being separate from the processor, in a similar field of endeavor, Phillips discloses a radio having an option board interface and an option board for use therewith. Phillips disclosure comprises a DSP (105) including a memory (107) and an external memory (109 and/or 133) coupled thereto, which may constitute as a writeable mass storage, wherein digital audio data is transmitted between the memories (figure 1)

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Wong et al. by implementing additional memory in an electronic device for the purpose of storing data for controlling the DSP and further enhancing the transfer of data from one device to another with better

efficiency, thus providing better operation capability of a radio device or the like as taught by Phillips.

Regarding **claim 19**, Wong discloses everything claimed as applied above (see claim 18). Wong et al. further discloses radio accessory interface-reference 115 via signal lines 250 and 240 (figure 2) to accessory device-reference 120 with memory-reference 220 (columns 2, last paragraph – column 3, line 5), which is indicative of a detection line and a connection bus transferring information between the electronic device and accessory device.

Regarding **claims 20 and 21**, Wong and Phillips disclose everything claimed as applied above (see claim 18). However, Wong et al. further discloses a transmitter/receiver unit of a mobile station figure 2-reference 110.

Regarding **claim 22**, Wong and Phillips disclose everything claimed as applied above (see claim 18). Wong et al. further discloses an accessory device with a microphone and speaker (figure 1-references 120 and 130).

Regarding **claim 25**, Wong and Phillips disclose everything claimed as applied above (see claim 18). Wong et al. further discloses (column 2, 2nd and last paragraph, column 4, line 40-45) indication of the parameters characterizing the accessory device.

Regarding **claim 28**, Wong and Phillips disclose everything claimed as applied above (see claim 18). However, Wong and Phillips fails to specifically disclose the writable mass storage as FLASH memory. The examiner takes official notice that FLASH memory was well known in the art.

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Wong and Phillips by implementing a writable mass storage by use of FLASH memory wherein, FLASH, FLASH memory is a type of non-volatile memory in which data will not be erased without power, thus providing adequate and permanent storage of the data/parameters.

Allowable Subject Matter

Claims 29-30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments with respect to claims 1-30 have been considered but are moot in view of the new ground(s) of rejection.

Applicant argued that the primary reference, Wong et al., and other references used fail to support/teach the claimed invention, in particular to the limitations of the providing two-way communication between an electronic device and an accessory device, and a writable mass storage being separate from the process disposed within the electronic device. The arguments are also based on the hand-shaking technique, which is not disclosed in the claim language. In respect to the Wong et al. reference, the examiner understands the applicant's invention at hand, however, the claim language provides a broad interpretation of the invention and thus the reference of

Wong is maintain as supporting the claimed limitations. In respect the argument of a writable mass storage being separate from the process disposed within the electronic device, a new reference has been introduced.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura A Grier whose telephone number is (703) 306-4819. The examiner can normally be reached on Monday - Friday, 7:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W. Isen can be reached on (703) 305-4386.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

LAG
December 15, 2002

MINSUN OH HARVEY
PRIMARY EXAMINER